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September 15, 2011

To: Jim Piefer

City of Sacramento

From: Phil Isenberg

Re: Comments on the Consultant's Draft 2010 Urban Water Management Plan (July 2010)

Dear Mr. Piefer:

Thank you very much for asking me to comment on the Draft 2010 Urban Water Management Plan (UWMP). The subject is very important and the UWMP eventually adopted by the City Council needs to clearly lay out how Sacramento can deliver a reliable supply of water for its citizens, through a prudent and careful use of water, while respecting the natural environment that is such a vital part of our heritage.

On a personal level, I want to thank you and other City officials who have consistently been focused, smart and responsive --- even when I have been occasionally critical of some of the details of the City's water policy. Even in these very tough economic times, the attitude of City staff remains positive and impressive.

These are my personal views as both a long-time resident of the city and as Chair of the Delta Stewardship Council. My colleagues on the Council may or may not agree with some or all of what I say.

When I use the word "city", "City" or "Sacramento" in this letter it refers only to the City of Sacramento, unless otherwise noted

Overall Impression

In my judgment the consultant's draft Sacramento 2010 UWMP does not meet the requirement of law¹. The draft UWMP does not adequately identify steps needed to improve the water efficiency and conservation in Sacramento, nor does the draft clearly focus on areas where the City's current practices may conflict with provisions of the California Constitution requiring all water in the state to be for reasonable, beneficial, and nonwasteful use.

The current draft UWMP is not a broad, forward-looking planning document that outlines the advantages and opportunities, and the problems and shortfalls of our current water supply system. Instead, it has been converted into a document that promotes three messages:

• Sacramento will meet the bare minimum state requirements for urban water use conservation by the year 2020 and that is all we really have to do.

Complying with the 20% reduction in urban water use by 2020 is easy of course, since the law allows each water district to choose a favorable 'base' for calculating required savings (thus limiting the amount of conservation required), and provides a number of exceptions and exclusions. Sacramento is currently among the higher per capita water users in the state (far exceeding the state average), and it is very clear that nothing in the consultant draft UWMP will change that fact. Suggesting that achievement of the bare minimum required by law encourages further state mandatory limits, contrary to the goals of the Urban Water Management Act, which hoped that local water agencies through their own efforts would achieve dramatically high water efficiency and conservation.

Total urban water use by
selected water agencies in 2006

Water Agency	Gallons per capita per day			
San Francisco	95			
Santa Barbara	127			
Marin (MWD)	136			
Los Angeles (LADWP)	142			
Contra Costa (CCWD)	157			
San Diego	157			
East Bay (EBMUD)	166			
Victorville (VVCWD)	246			
Bakersfield	279			
Sacramento	279			
San Bernardino	296			
Fresno	354			
Developed by DWR staff using PWSS date from 2006				

DWR. 2009. California Water Plan Update 2009. Sacramento, CA.

One way to show success through the UWMP is to compare water use in 2005 to the current use in 2010. Unfortunately, there is no clear indication of improvement. For 2010 and all further Plan updates, I strongly recommend that you include a summary of how we are doing compared to other cities in California. At least the Council will be able to judge the City's performance against other cities.

• The water metering program is under way and the rest of California should stop blaming us for not installing meters earlier.

I doubt that by slowly implementing a law we opposed, the City will claim much moral authority or expect much praise from the overwhelming proportion of California urban dwellers that have used water meters for decades. If there is any chance of improving Sacramento's image in the water world, it will be found in how rapidly and effectively we do more than the bare minimum required by law.

 All other problems and solutions relating to water, water quality, conservation, efficiency and environmental impacts should be deferred to a later time. This theme, suggests that almost nothing in the way of conservation or water efficiency need be done any time soon. We did not recycle a drop of water in 2005. We did not recycle a drop of water in 2010. We have no intention of recycling a drop of water in the future --- unless someone gives us the money to do it! That is not a reasonable response to the water problems that face Sacramento or California.

In a larger sense, this draft consultant report does not provide the Mayor and City Council with a coherent overview of the City's supply, the trends in demand, the practical alternatives for conservation and system efficiencies, nor the larger issue of how Sacramento's water use fits into the use of water in the entire State. The Council cannot be expected to act wisely unless a very clear set of facts is presented, policy options are fully outlined, and full consultant and staff recommendations are included. This is not done in the 2010 UWMP; deferring the hard questions to future reports is not a reasonable option.

Let me outline some significant additional problems with the document. I reference the previous 2005 Sacramento UWMP, which in some respects is far clearer than the current draft version.

Significant Issues

1. The limits to our available water supply are obscured in the draft 2010 UWMP.

In the 2005 UWMP, it was clearly indicated that Sacramento would use up its entire supply of available water by the year 2030, based on then-current patterns of use. It was astonishing that did not become a major public issue at the time, but for whatever reasons, it did not. The 2010 consultant draft UWMP seems to ignore this issue. Are the facts presented in 2005 still accurate? If so, what are the policy choices the Mayor and Council should consider? If not, what has changed?

A careful reader of the 2005 UWMP would learn that Sacramento's total water supply is provided through five (5) Sacramento's water supply contractsⁱⁱ. At least 80 percent or more of the total water comes from surface streams with the remaining balance coming from underground water. This discussion is replicated in the consultant draft 2010 UWMP.ⁱⁱⁱ

Table 21 Maximum Annual Diversion Allowed to the Year 2030 2010 Urban Water Management Plan City of Sacramento				
Year ⁽¹⁾	Maximum Diversion from the Sacramento River, AFY ⁽²⁾	Maximum Diversion from the American River, AFY ⁽³⁾	Maximum Combined Diversion, AFY	
2010	81,800	170,500	227,500	
2015	81,800	189,000	252,000	
2020	81,800	208,500	278,000	
2025	81,800	228,000	304,000	
2030	81,800	245,000	326,800	
2035	81,800	245,000	326,800	

- Notes:

 1. Data obtained from Schedule A of the 1957 Water Rights Settlement Contract between the U.S. Bureau of Reclamation and the City.
- The City may divert up to \$1,800 AFY from the Sacramento River as long as the total combined diversion from both the Sacramento and American Rivers does not exceed the Maximum Combined
- The City may divert up to the Maximum Diversion from the American River as long as the total combined diversion from both the Sacramento and American Rivers does not exceed the Maximum Combined

City of Sacramento. 2010 Urban Water Management Plan. pp. 4-6

In the 2005 UWMP, however, the reader can find a historic per capita use chart clearly indicating the water use patterns of residents of Sacramento.^{1V}

380 NOTES: Population for years 1985-1989 obtained from DOF Report 90-E4 downl oaded on 12/14/05. Population data for years 1990-1999 obtained from DOF Report Revised E4 loaded on 12/14/05. Population data for years 2000-2005 obtained from DOF Report Historical E4 downloaded on 12/14/05. Population for years beyond 2005 obtained 358 from SACOG website, downloaded on 12/14/05. Per capita demand is the total production previously presented in Table 6-1 divided by the population Water production data obtained from the City's Operational Statistics Reports. 336 314 304 302 298 Per Capita Water Demand, gpcd 292 AVERAGE = 282 gpcd 270 274 248 1987-1992 Drough 150,000 204 50 000 182 1995 1998 ■ Total Production — Per Capita Demand - - Average Per Capita Demand

Figure 6-1. Historical Per Capita Water Demand

City of Sacramento. Urban Water Management Plan 2005. pp 6-14

It is no surprise that Sacramento uses a lot of water per capita, and far more than the state average, or many other similar cities. By only seeking to achieve the permitted 'base' water use calculation in the 2009 water conservation bill, the consultant's report carefully hides the fact that Sacramento has over time done very little to reduce its per capita use of water.

In the 2005 UWMP you find a chart that compares projected water demands to available supply. There is nothing comparable in the 2010 consultant draft and there should be.

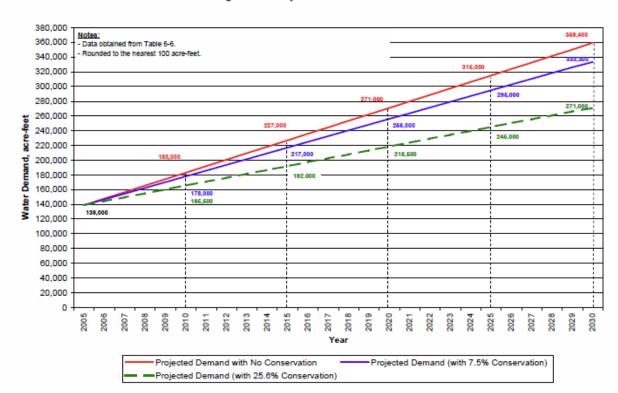


Figure 6-3. Projected Water Demands

City of Sacramento. Urban Water Management Plan 2005. pp. 6-15

2. There is no agenda for City action in the draft consultant UWMP.

Sure, there is casual mention of possible repair of the 100-miles of ancient water pipes vi, and the need to consider recycling water in the distant future, but the key elements of the consultant draft can only be found by reference to Appendix I, the City Interim Water Conservation Plan. And in that Appendix, it is very clear that virtually all of the conservation to be achieved in the near future come from water meters, which we historically opposed!

3. Is there a Sacramento water conservation goal beyond the he bare minimum required by state law?

If so, it is carefully hidden in the consultant's draft. A reader is left with the clear impression that the City of Sacramento will conserve water only when mandated by law, court order or regulatory changes, and only then if 'someone else' provides the money to make the changes (see p.4-23).

Reading the consultant's draft it is hard to avoid the conclusion that abstract conservation is good; specific actions are not. If the City policy is to actively support conservation and water efficiency, what are the policy choices the Mayor and Council should consider?

4. Is Sacramento in danger of violating the constitutional prohibition on unreasonable use or wasting of water?

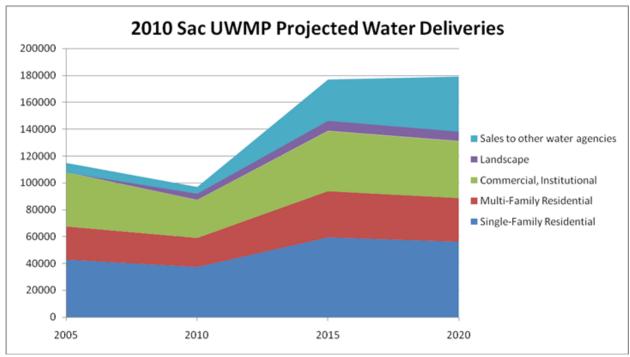
California's Constitution requires that all water use be reasonable and that there by no wasting of water. What aspects of Sacramento's current water system might be considered unreasonable use or wasting of water under the Constitution? What policy choices should the Mayor and Council consider to avoid this possibility?

For example, the 2010 UWMP indicates that perhaps "10 percent or higher" of our total water supply is lost through seepage and faulty water pipes. Is that a reasonable use of water? The same figure occurred in the 2005 UWMP (footnote to Table 6-12 at 6-13 and p 6-1), which suggests that very little if anything has been done to address this problem.

As you know, the State Water Resources Control Board is authorized to enforce the constitutional provision of beneficial use, reasonable use and no wasting of water. In 1989, in their famous Decision 1600, the Board found the Imperial Irrigation District in violation of the reasonable use provision of the state constitution by not instituting water conservation to prevent seepage and related water losses. Viii It seems to me that failure to mention this problem is totally unfair to the Mayor and the Council and hides an issue which must be addressed. Yes, I acknowledge that the Department of Utilities has expressed concern about this before, but nothing has been done. More disturbing is that the UWMP offers nothing in the nature of a remedy to this problem.

5. In the event of shortages of water, can or should Sacramento continue to serve areas outside the city limits? And do the contracts to provide services outside the City limits interfere with city residents getting water in the event of a severe drought? What policy choices should the Mayor and Council consider?

I include an interesting chart prepared by my colleague Aaron Farber here at the Delta Stewardship Council. He took the information in the 2010 consultant's report and put it into graphic form.



Adapted from 2010 UWMP. Tables 9-12. pp. 3-6 - 3-9

Assuming that we read this correctly, it indicates that increased demand for City water will be primarily to serve sales to other agencies, not for city residents themselves.

6. Using the same chart, it appears that the projected modest drop in Single-Family Residential use, which I assume includes household landscaping as well, is more than offset by significant growth in Commercial and Institutional use of water. Does that suggest that the often criticized use of water by the City for its parks and other irrigated public properties, and the same thing for large business owners, is a problem that needs to be corrected? The information seems to suggest that, but the draft UWMP offers no solution.

The draft consultant UWMP examines only some of these alternatives. But in each and every case it recommends absolutely no action whatsoever. Does this meet the test of law?

Additional questions

- 7. Table 9-12 on 3-6 to 3-9 shows no difference in the projected deliveries between metered and non-metered residential sectors of water use through 2030. This calls into the question the savings attributed to metering in Appendix I and throughout the UWMP. How much savings does the city expect from metering?
- **8.** If the foundational and programmatic best management practices were implemented and generated the projected savings of 1,869 acre feet (pg. 6-7, Appendix I), it would mean

- only a 2% reduction in retail water deliveries (92,060 AF) for 2010. This level of conservation would not seem to allow the city to meet the 2020 water use target of below 95% of the 5 year baseline. Will metering and education measures allow the city to meet the baseline? Are there any other conservation measures that would allow the city to meet 2020 target of 223 gpcd, which would be 20% reduction in per capita use?
- 9. On 3-5, the 2010 UWMP states that "water demands have been decreasing since the year 2000, except for recent dramatic increases observed since 2008." From 2007-2010, California experienced a series of dry and critical water years and the Delta ecosystem fully collapsed, leading to the biological opinions. While urban water use (not agriculture) somewhat increases in dry years, does the "dramatic increases" bring into question the city's reasoning that increased public awareness of drought conditions and the reduced supplies in the Delta produced conservation?
- 10. Over the next 20 years, the city expects groundwater use to remain constant at 22,300 AF yet expects to activate more of its water right and water diverted from the Sacramento and American Rivers to increase from 94,990 in 2010 to 156,952 in 2020 and 208,862 in 2035. Sacramento had 90 years to activate the full beneficial use of its water rights (e.g. Permit 992) and it seems to run counter to the goal of reducing reliance on the Delta and the objectives of the SWRCB, to finally activate and extract more than 100,000 more acre feet in 2030. How can the ecosystem recuperate, if cities continue to take more out of the rivers that serve as the primary inflows to the Delta, especially when the Sacramento and American Rivers are already fully appropriated for much of the year? Has the city calculated which appropriative water rights users (other communities with more junior water rights) may be pushed out of line?
- **11.** Also, in Tables 9-12, the retail water deliveries per single family residential connection seem to increase from 294 gallons per capita in 2005 and 2010 to 435 gallons per capita in 2015? Is there an explanation for the increase?
- 12. In the 2005 UWMP, there is a chart which shows the city will reach or exceed its total limits yet the city projects obligated water supplies to reach 34,684 in 2020 and 42,696 in 2030. Will the city consider a moratorium on selling any more water? As we have seen in the past year, a wet year is necessary to aid the ecosystem such as the surge in the splittail population.

Thanks for asking me to submit comments. It was useful to me to do so, and hopefully of some use to you too

This provision was adopted by the voter in 1928 and helped to settle a historic battle between riparian and appropriative users of water. This constitutional provision specifically reversed a 1926 State Supreme Court decision in *Heminghaus v. Southern California Edison Co.* (1926) 200 Cal. 81, "...which allowed a riparian water rights holder to use the entire flow of the San Joaquin River to flood pasture land for the reclamation of soil and for irrigation, thus preventing Edison from developing an upstream power project pursuant to an appropriative right." For further details see California Water II (2007) Arthur L. Littleworth and Eric L. Garner, Solano Press Books, pp. 40-41.

ⁱThe UWMP Act is found in Division 6 Part 2.6 of the California Water Code Sec. 10610 – 10656.

ii City of Sacramento. Urban Water Management Plan. 2005. pp. 4-4

iii City of Sacramento. Urban Water Management Plan. 2010. pp. 4-6

^{iv} City of Sacramento. Urban Water Management Plan. 2005. Figure 6-1. Historical Per Capita Water Demand, p. 6-14.

^v City of Sacramento. Urban Water Management Plan 2005. Figure 6-3. *Projected Water Demands*, p. 6-16.

vi City of Sacramento. Urban Water Management Plan 2010. Appendix I. pg. 24

viii California Water II, at pp. 114-115.



Department of Utilities Office of the Director

CITY OF SACRAMENTO CALIFORNIA

1395 35th Avenue Sacramento, CA 95822-2911 phone (916) 808-1400 fax (916) 808-1497/1498

October 11, 2011

Mr. Phil Isenberg, Chair Delta Stewardship Council 890 Ninth Street, Suite 1500 Sacramento, CA 95814

Subject: Comments on the Draft 2010 Urban Water Management Plan

Dear Mr. Isenberg:

Thank you for submitting your September 15, 2011 comment letter on the City of Sacramento's Draft 2010 Urban Water Management Plan (UWMP). We appreciate the effort you have taken to share your views, and provide the following responses to the comments in your letter.

Comment 1

Your first comment states your judgment that the Draft 2010 UWMP (Plan) does not meet the requirements of law, and refers to possible conflict with the provisions of article X, section 2 of the California Constitution, which prohibits waste or unreasonable use of water.

Response

The Plan addresses all of the elements required under the Urban Water Management Planning Act (Water Code §§ 10610 et seq.), and follows the detailed guidelines issued by the Department of Water Resources. It complies with applicable laws. With respect to the California Constitution's prohibition against waste or unreasonable use, the City is also in compliance. The only specific claim of non-compliance appears elsewhere in your letter, where you suggest that the Plan's assumption regarding unaccounted for water, due to leakage, theft and other causes, may violate this prohibition. As noted in our response to this comment, below, some degree of this type of loss is inevitable and normal in every water system. The City has an active program to reduce the causes of water loss and minimize their occurrence. There is no basis to consider this waste or unreasonable use under article X, section 2.¹

¹ If your citation of this constitutional provision is intended to refer to the water use reductions mandated by SBX7 7, we would call your attention to Water Code § 10608.8(a)(2), which states that a water purveyor's failure to reduce per capita demand, as required under SBX7 7, cannot provide the basis for asserting a violation of law for purposes of any state administrative or judicial proceeding prior to January 1, 2021.

Comment 2

Your next comment states that the Plan is not a "broad, forward-looking planning document," but, instead "has been converted into a document that promotes three messages:

- Sacramento will meet the bare minimum state requirements for urban water use conservation by the year 2020 and that is all we really have to do.
- The water metering program is under way and the rest of California should stop blaming us for not installing meters earlier.
- All other problems and solutions relating to water, water quality, conservation, efficiency and environmental impacts should be deferred to a later time."

We do not agree with these assertions, and will respond to each of them separately.

Response

- a. The first assertion claims that:
 - Sacramento is currently among the higher per capita water users in the state
 - o Sacramento is only complying with the minimum goal
 - One way to show success is to compare 2005 to 2010 [demands]

With respect to higher per capita water users, it is true that inland water users (including Sacramento) use more water, in large part due to the geography and climate of the area. The Sacramento Valley (along with other inland areas in the State) consumes more water than the cooler coastal areas due to the local hotter climate. This is shown in the table included in your comment letter. In addition, California's coastal cities can be expected to exhibit a lower per capita demand because housing is denser and tends to have less landscaping. The Legislature noted these distinctions in SBX7 7 (Water Code § 10608(i)):

Per capita water use is a valid measure of a water provider's efforts to reduce urban water use within its service area. However, per capita water use is less useful for measuring relative water use efficiency between different water providers. Differences in weather, historical patterns of urban and suburban development, and density of housing in a particular location need to be considered when assessing per capita water use as a measure of efficiency.

However, the fact that per capita water use in Sacramento is higher than per capita water use in coastal regions does not mean that the City is not committed to reducing this per capita usage through cost-effective water use efficiency measures; nor does the fact that the Plan contains the elements required by State law preclude the City from achieving a greater reduction than is required under State law. In this regard, please note that the City's per capita water demand in 2010 (207 gpcd) was below the 2020 target mandated by State law, and also is significantly lower than the demand shown for any other inland area listed on the urban water use table included in your comments. Notably, the Fifth Draft Delta Plan (August 2, 2011) issued by the Delta Stewardship Council, proposes the following two policies (Policy WR P1) for urban water suppliers:

- Adopt and implement an Urban Water Management Plan and all required elements and measures,
 meeting the standards and timelines established in Water Code section 10610 et seq.
- Adopt and implement a plan to achieve 20 percent reduction in statewide urban per capita water use by December 31, 2020, meeting the standards and timelines established in Water Code section 10608 et seq.



This is precisely what the City is doing, as reflected in the draft Plan.

Finally, with regard to your request for a comparison of 2005 and 2010 demands: The City's demand per capita in 2005 was 265 gallons per capita per day (gpcd), and for 2010 it was 207 gpcd, a 22 percent decrease in per capita water consumption.

b. The second assertion states that the City is implementing its water meter retrofit too slowly, after the City opposed the retrofit law, and should accelerate its pace to have "any chance of improving Sacramento's image in the water world."

Your comment is correct that the City in the past opposed legislation mandating the installation of residential water meters, based on provisions in the City Charter that compelled City officials to take that position. However, since adoption of the meter legislation that effectively preempted the City Charter prohibition, City officials have embraced the challenge of funding and implementing a \$350 million dollar meter retrofit program. To date, the City has installed 32,485 meters at a cost of \$58 million, funded through water rate revenues, grants and loans, and will continue to pursue funding, including grant funding, in order to expedite the installation schedule. For this reason, your comment concerning the City's image in the water world appears to be based on an outdated perception stemming from the City's past opposition to meter legislation, rather than on what the City is actually doing to implement a massive water meter retrofit program.

c. Your third assertion is that the City is deferring "all other problems and solutions relating to water, water quality, conservation, efficiency and environmental impacts ... to a later time." Although this comment is phrased broadly, the only example given is the City's lack of water recycling. Aside from that example, there is no explanation what "all other problems and solutions relating to water, water quality, conservation, efficiency and environmental impacts" refers to, nor how the Plan is deferring those to a later time.

With regard to water recycling, initial results in the City's Water Master Plan process (still under development) suggest that the cost of providing recycled water is much more expensive than providing potable water, with no apparent commensurate environmental benefit, both in the context of water supply and greenhouse gas generation. Recycling is more cost effective and has greater environmental benefits in areas that import water at great expense, than in areas such as ours where it is not necessary to import water and water is returned to the river after use and treatment. Your comment suggests the application of a one-size-fits-all approach to water recycling that is not justified or appropriate.

In addition, it is reasonable and consistent with the "beneficiary pays" principle embodied in the Fifth Draft Delta Plan, to seek outside funding for water recycling measures when the City otherwise would incur significant costs to implement such measures without any commensurate benefit to the City or City residents and ratepayers. With regard to the comment that this is not a reasonable response to the water problems of California, we note that the Sacramento Regional County Sanitation District is, in fact, currently obtaining grant funding (through Proposition 50 and 84, among other sources) to construct recycled water improvements to provide recycled water locally, including to a number of potential City customers.

Comment 3

Your letter states that the City's 2005 UWMP indicated that Sacramento would use up its entire water supply by the year 2030, but the 2010 Plan seems to ignore this issue.



Response

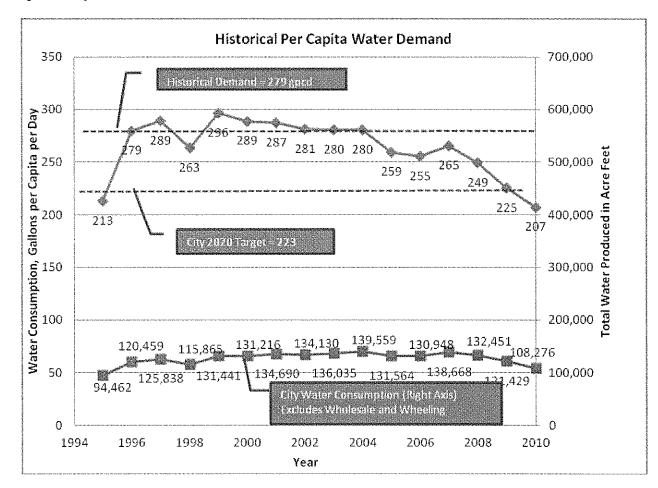
The Plan is not ignoring this issue. The demand estimates used in the 2005 UWMP were based on data developed in the early 1990s, which utilized less refined assumptions for water demands and land use. City staff and consultants recently have recalculated the City demands based on new and better information (including information from water meters). Based on this data, the Plan indicates that total aggregate demands in the year 2035 will not exceed the City's water entitlements, even when new potential wholesale customers are included.

Comment 4

Your letter notes that the 2005 UWMP included a chart showing historic per capita water demands indicating the water use patterns of residents of Sacramento, although no such chart is included in the 2010 Plan. The comment seems to suggest that this was done to hide "the fact that Sacramento has over time done very little to reduce its per capita use of water."

<u>Response</u>

We agree that a similar chart would be helpful to better understand the City's recent water consumption. Staff will have the Plan revised to include the chart set forth below. No attempt was made to hide the City's recent per capita use of water, which has declined, as indicated in the Plan and shown on the chart below.



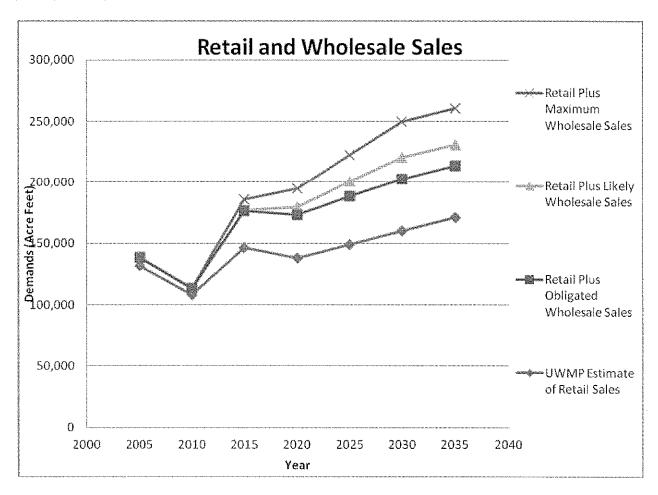


Comment 5

Your letter refers to a chart in the 2005 UWMP that compared projected water demands to available supply, and states that a comparable chart should be provided in the 2010 Plan.

Response

A chart similar to the one provided in 2005 is presented below and will be included in the Final UWMP. It should be noted that the chart presented in the 2005 UWMP included demand estimates under various conservation scenarios including no conservation, 7.5 percent conservation and 25.6 percent. The below chart assumes 20 percent conservation from recently calculated demands, based on current State law requirements. As previously noted, nothing in the Plan precludes the City from achieving a greater reduction than is required under State law.



Comment 6

Your letter states that there is no agenda for City action in the Plan, and suggests that the City's Interim Water Conservation Plan is inadequate because substantially all of the water conservation to be achieved in the near future would result from water meters, which the City has historically opposed.



Response

The Interim Water Conservation Plan (IWCP) lays out a variety of actions necessary to satisfy the requirements of the California Urban Water Conservation Council (CUWCC) memorandum of understanding (MOU). The IWCP is being revised and finalized and will be brought to the City Council next year. Water meters are a vital component of any water conservation program, and their importance is not lessened by the City's past opposition to residential water metering. As noted in a prior response, the City's past opposition was based on a City Charter provision that is no longer relevant.

Comment 7

Your letter states that a reader of the Plan "is left with the clear impression that the City of Sacramento will conserve water only when mandated by law, court order or regulatory changes, and only then if 'someone else' provides the money to make the changes."

Response

This is not an accurate statement, and misrepresents the facts. The City actively supports water conservation and water use efficiency, and has taken a number of actions to promote these important policies, including: (1) Prior to 2005, the City conducted a voluntary meter installation program that allowed property owners to request a water meter, which was as far as the City could go under the City Charter prohibition then in effect; ; (2) In 2009, the City approved a restructured metered water rate that incentivizes conservation by basing approximately 60% of the rate on volumetric usage for the average residential user, and the City has committed to increasing this percentage when adequate metered usage data is available to support development of a revised rate; (3) Since 2009, the City has made substantial investments of ratepayer funds in state-of-the art metered water technology and adopted an Automated Meter Infrastructure program that will be able to track water usage and detect leaks or other anomalies so that they may be promptly remedied; (4) The City has adopted City Code amendments to increase water use efficiency, including the Efficient Water Landscape Ordinance and the Outdoor Water Conservation Ordinance; (5) Since 2005, the City has installed 32,485 water meters, funded by a combination of ratepayer funds, loans and grants; and (6) The City has implemented and continues to implement numerous programs to encourage water conservation and reduce inefficient water use, including, but not limited to:

- Conducting "Water Wise House Calls" to audit single family and multifamily dwelling units and provide advice on improving water use efficiency.
- Providing incentives to homeowners and businesses to install water efficient toilets, fixture units and clothes washers.

Comment 8

This comment suggests that the City may be at risk of violating the constitutional prohibition against unreasonable use or waste of water, citing the Plan's assumption that 10% of water is unaccounted for, and making reference to the State Water Resources Control Board's decision finding the Imperial Irrigation District in violation of this prohibition because of practices such as enormous spillage rates from unlined canals, which water was "lost" to the Salton Sea.



<u>Response</u>

We appreciate the importance of diligence to avoid the risk of any waste or unreasonable use. An evaluation of the facts demonstrates that the City is not incurring such risk, and is improving its compliance as it pursues the actions set forth in the Plan and other City plans and requirements regarding water use. With reference to your specific assertion regarding system losses, in 1999, the California Urban Water Conservation Council identified a 10 percent benchmark for unaccounted for water (water lost due to leaks, theft, etc.). This is the industry standard. It is impossible to reduce the leakage rate of a distribution system to zero, as the cost to do so would be prohibitive. This is particularly true of a system as extensive as the City's. The Plan uses this 10% benchmark, which will be subject to revision when the City is fully metered and the actual loss rate can be calculated. Regardless of what reasonable assumption is used, the City is taking significant steps to reduce water loss. The City has spent \$26 million over the last 10 years to replace leak prone riveted steel transmission mains, and spends nearly \$800,000 in ratepayer fees annually to correct leaks. The City also is implementing an active leak detection program this year to further reduce leakage. The City has made significant investments in automated meter technology that will make it far easier to indentify and reduce leakage in future years. Additionally, the City's water meter retrofit program includes the replacement of leak-prone backyard water mains that have exceeded their useful life, and the estimated cost of replacing the pipelines (apart from the meters) in future years is approximately \$195,000,000. These expenditures represent a very significant ongoing investment and commitment by the City and City ratepayers to reduce water loss.

You referenced the SWRCB's Imperial Irrigation District (IID) decision (consisting of Decision 1600 and the follow on Order 84-12). We assume that you reference this due to its reliance on Article X, Section 2 of the State Constitution. It is certainly an interesting decision and well worth reading. However, there is no analogy between IID's then existing water practices and those of the City. This is illustrated, by way of example, by (i) IID's loss of approximately one million acre-feet of water annually to the Salton Sea, where it is lost to re-use; (ii) canal spillage approximately 77% of the time; (iii) use of unlined canals; (iv) absence of regulatory reservoirs necessary to reduce canal spills and excess deliveries to farmers' headgates; and (v) absence of agricultural tailwater recovery systems. (These examples are from the SWRCB Decision 1600.) In contrast, the City's water use is quite reasonable, and furthermore is improving significantly as reflected by the data set forth in the 2010 UWMP.

Comment 9

Your letter asks whether the City can or should continue to serve wholesale water outside the City limits in the event of water shortages and whether such contracts would interfere with City residents getting water in the event of a severe drought. Your letter also asks whether increased demand for City water will be primarily to serve wholesale sales to other agencies, not for City residents themselves.

Response

Future increases in demand may occur due both to the wholesale provision of water to neighboring communities, and to increases in demand of City residents. The City's water rights are in part a resource both for City residents and for others in the region. In fact, the water rights assigned to the City by SMUD contemplate such regional benefits. This may be of increased importance in the future given groundwater contamination and other issues.



With respect to the specific question of whether wholesale contracts will interfere with City residents getting water in the event of a severe drought, it is unlikely that wholesale water agreements will impact service to residents. This is analyzed in the Plan chapter titled "Water Supply Reliability and Water Shortage Contingency Planning" (Chapter 5). The Water Code requires a water supplier to analyze the impact of a single year and a three year drought. The Department of Water Resources Urban Water Management Plan Guidebook provides specific direction on which past drought to replicate for future planning. The Plan used the 1977 drought for modeling a single year drought and the 1990 to 1992 to model a three year drought. As indicated in the Plan, the occurrence of these drought conditions would not result in interruptions to City residents.

The plan does mention the possibility of an extremely severe drought that has a very low probability of occurrence that would require demand reductions by City residents. Such a drought would require deliveries to wholesale customers to be reduced or ceased completely.

Comment 10

Your letter also interprets the Plan to indicate that 1) a modest drop of single family water use is offset by a significant growth in commercial and Institutional us of water and 2) the use of water by the City for its parks and other irrigated public properties, and by large business owners, is a problem that needs to be corrected.

<u>Response</u>

The demand growth between 2010 and 2015 assumes a number of drivers, including growth in all water use sectors (residential as well as commercial and institutional), reduction in demand, and economic recovery. The growth of all water use sectors inside the City is proportionally the same.

The tools used for reducing large landscape demands include Landscape Metering (BMP 1.30 under the CUWCC MOU), conservation pricing (BMP 1.40) and Large Landscape Conservation Program and Incentives (BMP 5.00). The City implements all of these measures.

With respect to park irrigation, the Utilities Department has performed large landscape audits on 123 of the City parks. Prior to the audits, nearly two thirds of the parks used more water than the standards currently applied to new development under the City's water efficient landscape ordinance. After the audits were performed, this was reduced so that approximately two thirds of the parks now meet the standards applicable to new development. While we are encouraged by this success, we recognize that there is still more work to be done. The current economic conditions pose a challenge because funding for City parks has been harder hit that many other municipal functions.

We are not aware of any factual basis for your comment that use of water by large business owners is a problem that needs to be corrected. We are committed to implementing cost effective water conservation measures across all water use sectors.

Comment 11

Your letter asks how much savings the City expects from metering.

Response

The City is not aware of any credible study that quantifies the amount of conservation solely attributed to metering. However, the City recognizes that metering and metered billing is an important element of an effective water conservation program, and the City believes that it is reasonable to assume that meaningful conservation



will result from full implementation of the meter retrofit program.

Comment 12

Your letter notes that if the foundational and programmatic best management practices were implemented and generated the projected savings of 1,869 acre feet (pg. 6-7, Appendix I), it would mean only a 2% reduction in retail water deliveries for 2010, which would not meet the per capita use reductions mandated by State law. In addition, your letter asks if there any other conservation measures that would allow the City to meet the 2020 target of 223 gpcd.

Response

This comment makes a good point and additional explanation is warranted. The 1,869 acre foot number is for one year only. The continued maintenance and funding of the conservation program is needed to promote continued and increased water conservation. Obviously, the one year savings of 1,869 acre feet is not sufficient to meet the statutory conservation targets for 2015 and 2020. However, as the conservation program continues to perform functions such as replacing inefficient toilets, installing water meters, instituting appropriate pricing of water and all of the other Best Management Practices, the conservation achieved in subsequent years will continue to grow and we anticipate that the City will meet or exceed its statutory obligations. The City's planned conservation measures will be detailed in the Interim Water Conservation Plan due to be adopted next year.

Comment 13

Your letter notes that the Plan states that "water demands have been decreasing since the year 2000, except for recent dramatic increases observed since 2008," and asks whether this brings into question the City's reasoning that increased public awareness of drought conditions and the reduced supplies in the Delta resulted in conservation.

Response

The excerpted language contains a typographic error. The Plan should be revised to state "... except for recent dramatic increases observed since 2008." The intent was to describe the accelerating reduction in water demands since 2008. Thank you for bringing this to our attention.

Comment 14

Your letter states that the City's intention to increase its surface water usage to meet future City demands "seems to run counter to the goal of reducing reliance on the Delta and the objectives of the SWRCB," and states that the ecosystem cannot recuperate if cities continue to take more out of the rivers that serve as the primary inflows to the Delta.

Response

The City's water rights permits currently provide to the year 2030 to perfect the City's water rights. An extended period to perfect water rights is appropriate for municipalities due to the fact that cities can grow in accordance with approved General Plans, and their water rights must be adequate to supply water to meet reasonable water demands associated with growth and development. This is reflected in and consistent with the domestic and municipal water use preferences codified in Water Code sections 106 and 106.5. This also is consistent with



various provisions of SBX7 1 providing assurances that Delta solutions must respect water rights and water right priorities (e.g., Water Code §§ 85031(d), 85032(i)). The City and City residents and ratepayers have made substantial investments in the City's water supply infrastructure and facilities in reliance on the City's water rights and the water supply assured by such rights, and will continue to do so. The City also is party to a settlement contract with the U.S. Bureau of Reclamation which among other things allowed the development of Folsom Reservoir, and provides additional security to the City's water supply. The City's exercise of its water rights is consistent with the California water rights system. It is also essential to the economic viability of the City and to some extent the Sacramento region. The City is incorporating metering and conservation into its routine practices which will ensure that its water use comports with current standards.

Comment 15

Your comment suggests that the Plan shows retail water deliveries per single family residential connection increasing from 294 gallons per capita in 2005 and 2010 to 435 gallons per capita in 2015.

Response

We do not read the Plan to provide that data. Please see Table 8 (page 3-5). The 2015 Interim Target is 256 gpcd and the 2020 water use target is 223 gpcd.

Comment 16

Your letter refers to water demand projections in a chart in the 2005 UWMP, showing that demands would exceed the City's water supply, and asks whether the City will consider a moratorium on wholesaling any more water.

Response

As noted above, the water demand projections in the 2005 UWMP have been replaced by the 2010 Plan, which uses more current and accurate assumptions to develop its demand projections. Based on the 2010 Plan projections and the current level of wholesale demand, there is no reason to consider a moratorium at this time. It is within the City Council's discretion to enter into future wholesale water agreements. As mentioned above, the City's surface water rights are in part a regional resource, and supplying wholesale surface water to neighboring communities is a vital component of a robust regional conjunctive use program.

We hope that the above responses prove helpful. Your comment letter, and this response, will be included in the record for the City Council's consideration of the Plan.

Sincerely,

Dave Brent

Interim Director of Utilities

cc: Mayor and City Council Members
John Shirey, City Manager

Bill Busath, Interim Engineering Manager

Dan Sherry, Supervising Engineer

Jim Peifer, Senior Engineer

